



IN THE CLAIMS:

**Please amend claims 1 and 10 as follows:**

*Sub B*

1. (Amended) A magnetic storage medium, comprising:  
a magnetic recording layer;  
a superconducting layer; and  
a thermal insulation layer, provided between the superconducting  
layer and the magnetic recording layer, for reducing heat  
transmitted from the superconducting layer to the magnetic layer[,  
wherein  
a Curie temperature of the magnetic recording layer is equal to, or  
higher than, a critical temperature of the superconducting layer].

*Sub 1*

10. (Amended) A method of recording and reproducing using a magnetic storage  
medium in which at least a magnetic recording layer, [and] a superconducting layer  
and a thermal insulation layer provided between the superconducting layer and the  
magnetic layer are deposited, [a critical temperature of the superconducting layer  
being equal to, or higher than, a Curie temperature of the magnetic layer,]  
wherein:

*Sub 2*

data is recorded in the magnetic recording layer by passing a signal  
magnetic field produced by a recording-use magnetic head through a part of the  
superconducting layer where the data is to be recorded and diamagnetism disappears;  
and

data is reproduced from the magnetic recording layer by detecting, using  
a reproduction-use magnetic head, a magnetic flux leakage from the magnetic  
recording layer through a part of the superconducting layer where the data is to be  
reproduced and diamagnetism disappears.